Example 118

[1228]

3-chloro-N'-({4-[(cyclohexylmethyl)oxy] phenyl}methyl)-N'-(2-hydroxyethyl)-4-[(1-methylethyl)oxy]benzohydrazide

[1229]

a) 4-[(cyclohexylmethyl)oxy]benzaldehyde

[1230] A solution of 4-hydroxybenzaldehyde (0.244 g, 2.00 mmol) in CH₃CN (4.0 mL) was treated with bromomethylcyclohexane (0.279 g, 2.00 mmol) and $\rm K_2CO_3$ (0.332 g, 2.40 mmol). The reaction mixture was heated to 100° C. for 1 h in a Biotage Initiator microwave synthesizer. Additional bromomethylcyclohexane (0.279 g, 2.00 mmol) and $\rm K_2CO_3$ (0.332 g, 2.40 mmol) were added and the reaction mixture was again heated to 100° C. for 1 h in a Biotage Initiator microwave synthesizer. Additional bromomethylcyclohexane (0.279 g, 2.00 mmol) and $\rm K_2CO_3$ (0.332 g, 2.40 mmol)

were added and the reaction mixture was again heated to 100° C. for 1 h in a Biotage Initiator microwave synthesizer. Following cooling, the reaction mixture was filtered and concentrated in vacuo. Purification via flash column chromatography (10% EtOAc/hexanes) gave the title compound as a white solid (0.360 g; 82%). ¹H NMR (400 MHz, DMSO-d₆) δ ppm 9.86 (s, 1H) 7.85 (d, J=8.8 Hz, 2H) 7.11 (d, J=8.8 Hz, 2H) 3.89 (d, J=6.3 Hz, 2H) 1.80 (d, J=12.6 Hz, 2H) 1.61-1.79 (m, 4H) 1.13-1.32 (m, 3H) 1.07 (dd, J=12.6, 2.6 Hz, 1H) 1.01 (dd, J=11.9, 2.5 Hz, 1H). MS (ES+) m/e 219 [M+H]⁺.

b) 3-chloro-N'-({4-[(cyclohexylmethyl)oxy] phenyl}methyl)-N'-(2-hydroxyethyl)-4-[(1-methylethyl)oxy]benzohydrazide

[1231] Following the procedure of Example 116b), except substituting the compound from Example 101b) for the compound from Example 118a) for the compound from Example 118a) for the compound from Example 118a), the title compound was obtained as a white solid. $^1\mathrm{H}$ NMR (400 MHz, DMSO-d₆) δ ppm 9.31 (s, 1H) 7.73 (d, J=2.0 Hz, 1H) 7.64 (dd, J=8.6, 2.3 Hz, 1H) 7.25 (d, J=8.6 Hz, 2H) 7.20 (d, J=8.8 Hz, 1H) 6.81 (d, J=8.6 Hz, 2-H) 4.75 (qq, J=6.1 Hz, 1H) 4.44 (t, J=5.9 Hz, 1H) 3.98 (s, 2H) 3.70 (d, J=6.3 Hz, 2H) 3.43 (q, J=6.0 Hz, 2H) 2.90 (t, J=5.8 Hz, 2H) 1.76 (d, J=12.4 Hz, 2H) 1.57-1.72 (m, 4H) 1.29 (d, J=6.1 Hz, 6H) 1.10-1.25 (m, 3H) 1.02 (dd, J=12.1, 2.6 Hz, 1H) 0.96 (dd, J=11.4, 2.5 Hz, 1H). MS (ES+) m/e 475 [M+H]+.